

Developing The Smart Card -Research Results-

Conducted by BAI and PA&A for
AT&T Calling Card Services

We Must Understand to Be Sure

- Does the consumer desire fewer cards in his/her wallet?
- What are the characteristics of the card issuer/operator?
 - Trust
 - Security
 - Independence
 - Integrity
 - Honesty
 - Confidentiality
- What business is the issuing/operating institution in?
 - Banking
 - Government
 - Telecommunications
 - Other

We Must Understand to Be Sure

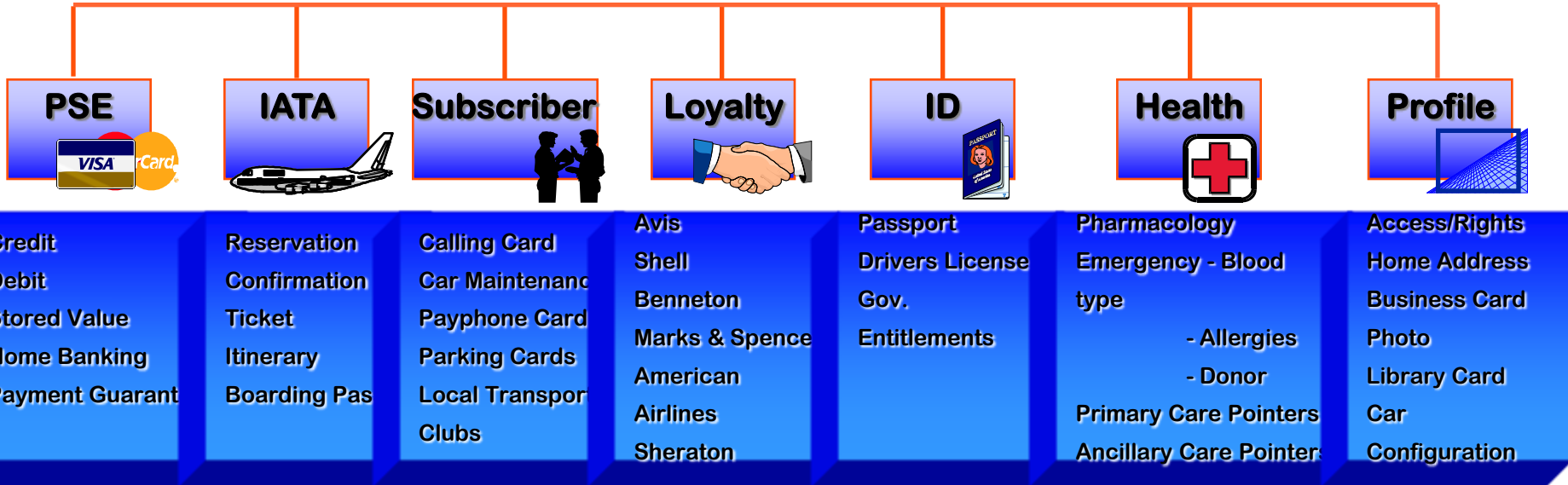
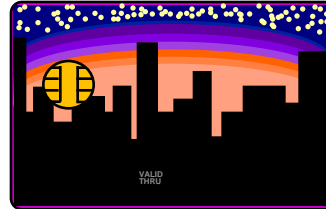
- Does the brand on the card have any relevance to the consumer/user?
- Will the consumer recognize the difference between the application issuer, card issuer and the operator?
- Will the consumer believe that the device is secure and the data within it confidential?
- Will the consumer understand how to operate a multi-application smart card?

We Must Understand to Be Sure

- Assuming the consumers are interested in the multi-application capability, how will they group their different cards, identities or services?
- Will they want to be able to change the content of the card during the cards two or three year life?
- Would they be willing to pay for the service offered?
- How would they value the service offered?

We Must Understand to Be Sure

- Will Smart Cards
 - Achieve significant market penetration the next 3-5 years?
 - Be used as a “key” to access network services through individual devices?
 - Be used as a “key” to access network services across multiple devices?
 - Be used to deliver applications to consumers or just access to applications?



Each by Themselves Hard to Justify

European Market Research Study Background

- A two phased research study to understand consumer needs and preference was conducted in February and March 1997
- Focus groups were conducted in:
 - UK
 - Germany
 - Holland
 - Spain
- Seven questions placed in Omnibus surveys in:
 - UK
 - Spain
 - Holland
 - Italy
 - Germany
 - France

Study Objectives

Current Card Behavior:

- To gain an understanding of consumers' perceptions toward the cards/items in their possession; which are always carried/which are carried occasionally or rarely.
- To determine whether the card, when used, is a vital asset or just something that one needs to go about their day.
- To gain an understanding of what constitutes a card's value.

Study Objectives

Current Card Behavior:

- To gain an understanding of how typically used cards/items are bundled together.
- To determine consumers' level of understanding of a multi-co-branded card.

Study Objectives

Smart Card:

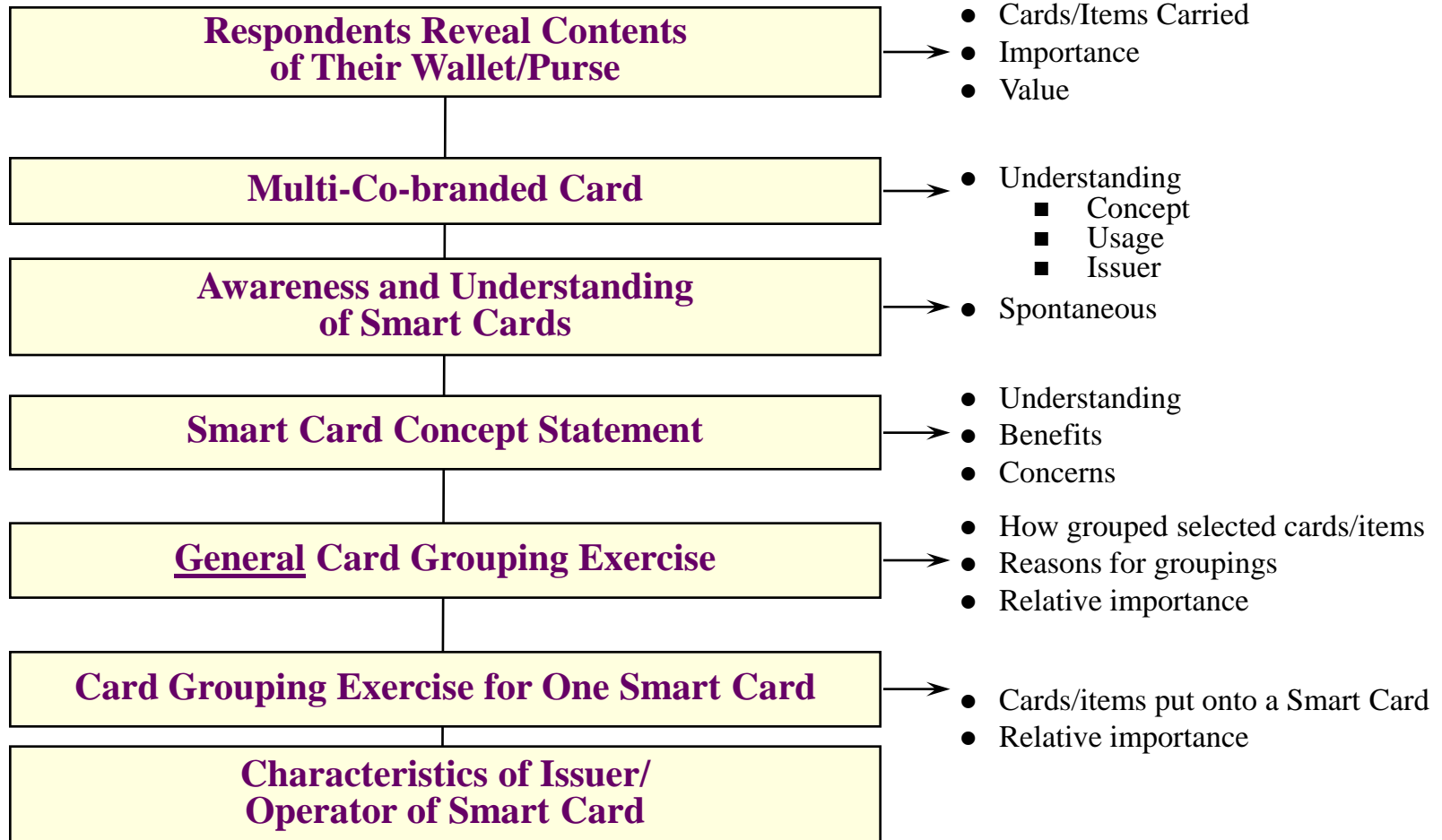
- To assess market awareness and usage of Smart Cards.
- To identify consumers' perceived benefits and concerns of a Smart Card.
- To determine interest and appeal in the Smart Card concept.
- To determine which cards/items constitute consumers' 'ideal' Smart Card.

Study Objectives

Smart Card:

- To gain an understanding of the necessary characteristics that an organization would possess if it were to issue and manage a Smart Card.
- To determine the types of companies most suitable to issue and manage a Smart Card.

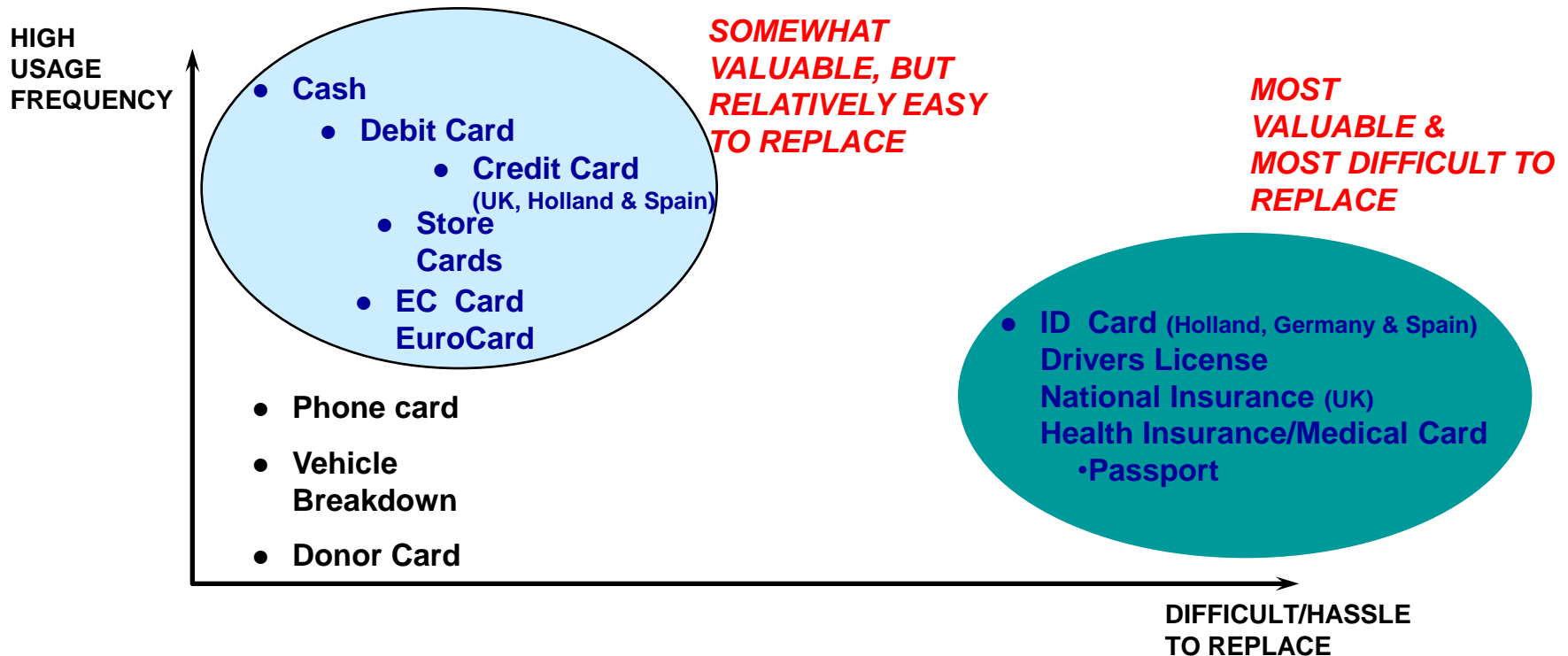
The Flow of the Focus Groups



Value

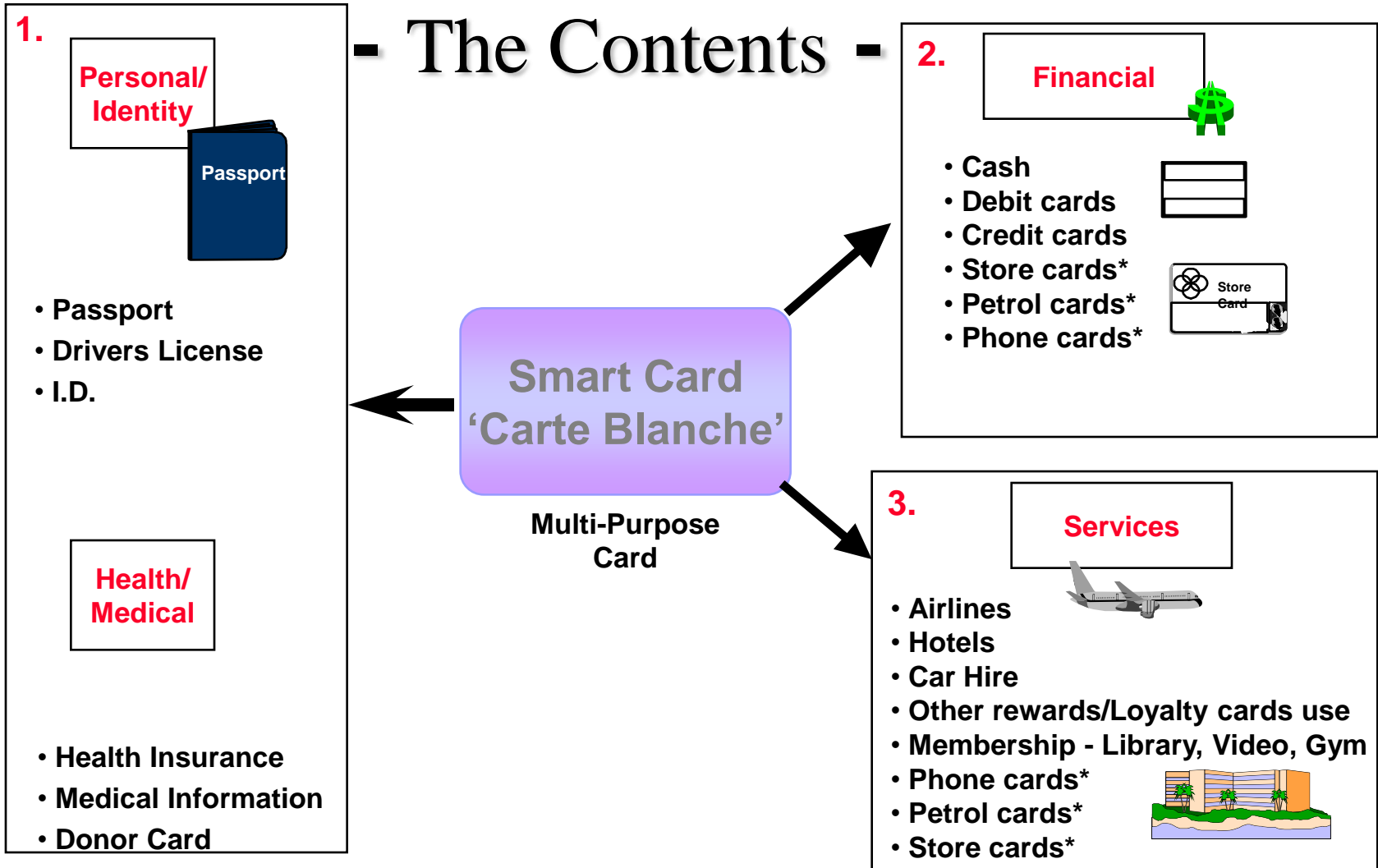
- The value placed on cards/items largely evolves around:

Replace-ability & Frequency of use



One Smart Card

- The Contents -

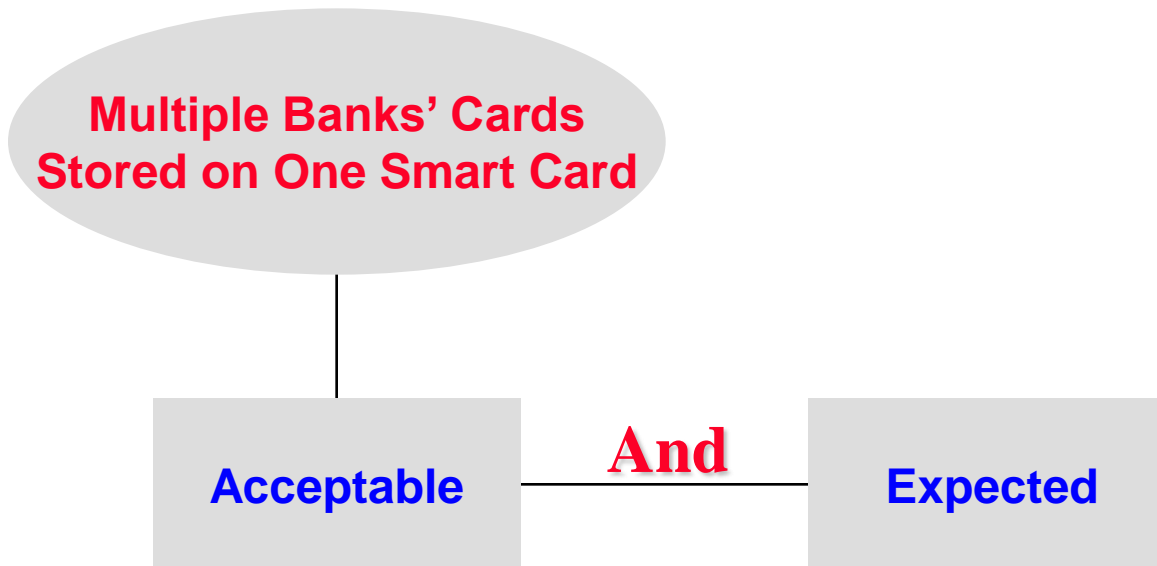


* Often in more than one group.

Competing Applications Issuers

-One the Same Card-

- Minimal or no branding required
 - Security
 - Personalize
- Consumers often use more than one bank
 - Use several cards from different banks.

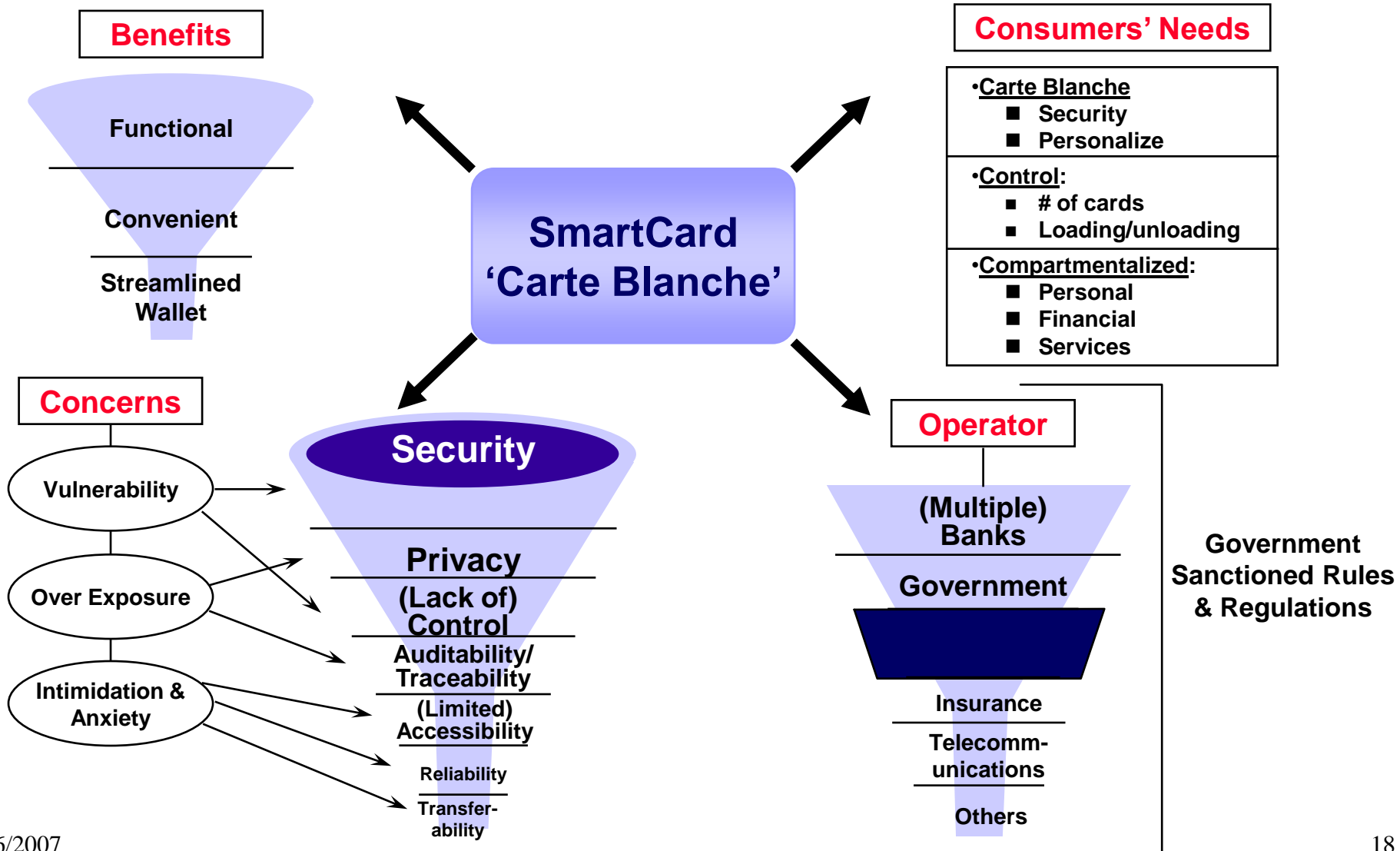


Consumer Perspective on the Issuer and Operator For Smart Card

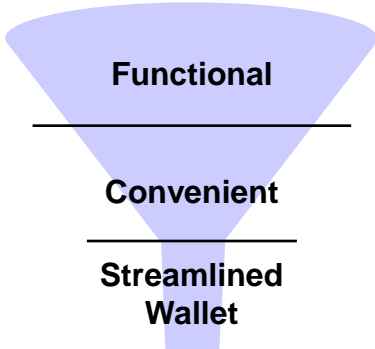
I don't care who produces it, it's firm
operating the system that matters-
security, data, Protection...

(Germany, Female, Upper income)

Executive Summary



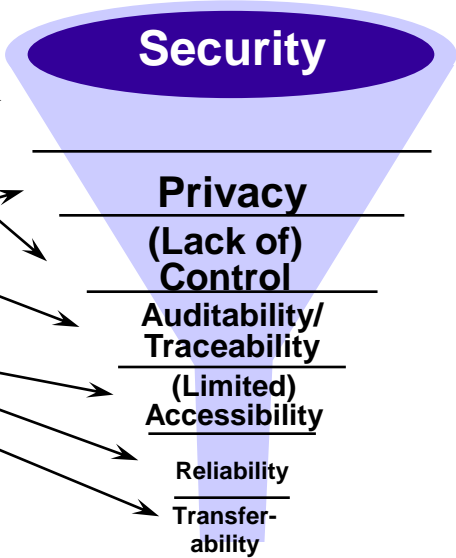
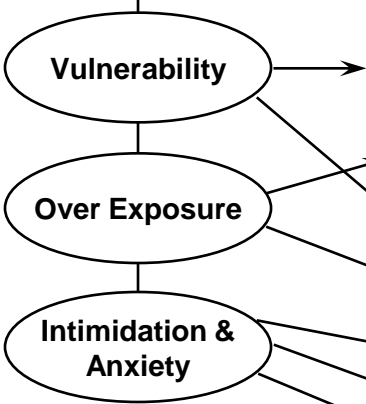
Benefits



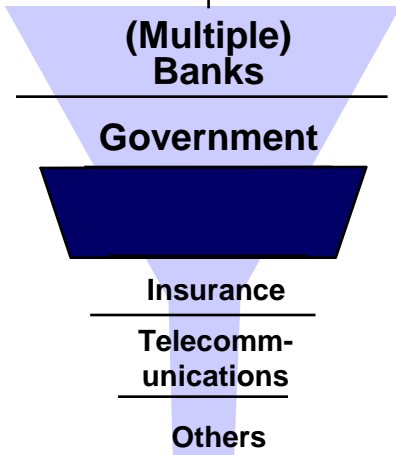
Consumers' Needs

<p>•Carte Blanche</p> <ul style="list-style-type: none"> ■ Security ■ Personalize
<p>•Control:</p> <ul style="list-style-type: none"> ■ # of cards ■ Loading/unloading
<p>•Compartmentalized:</p> <ul style="list-style-type: none"> ■ Personal ■ Financial ■ Services

Concerns



Operator



Government Sanctioned Rules & Regulations

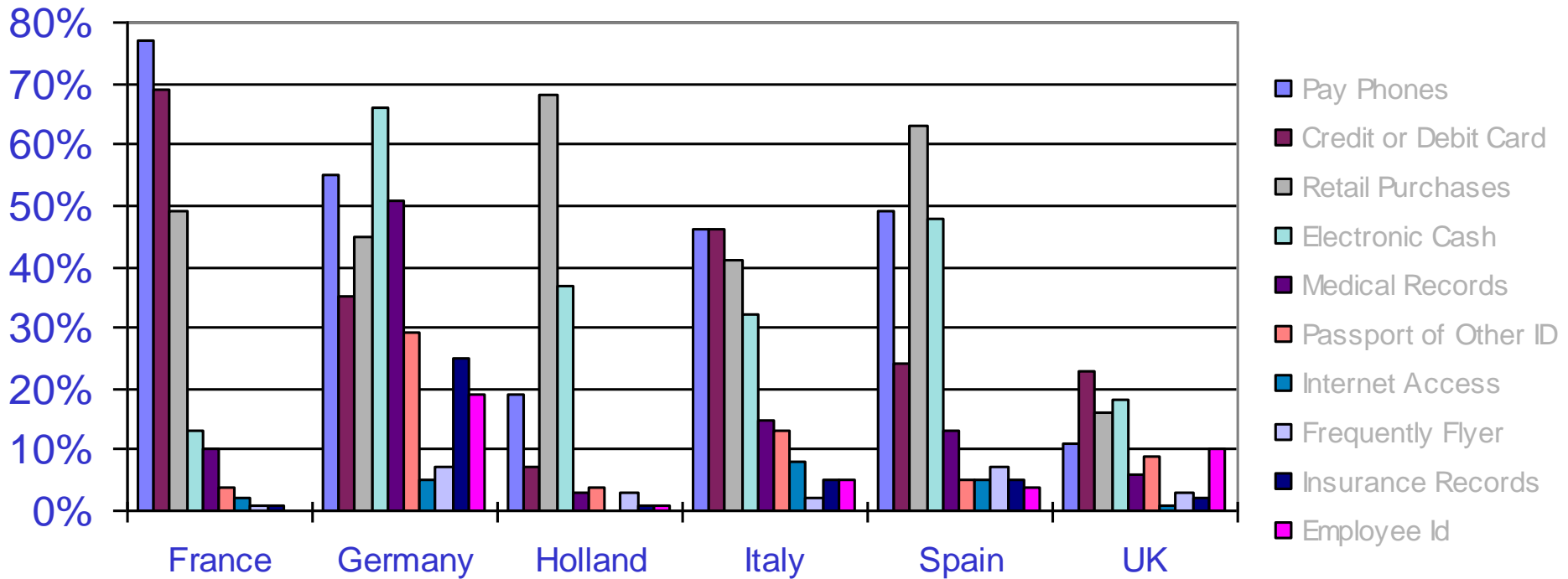
Executive Summary

- Qualitative Research -

- Enormous market potential for a Smart Card in all four countries:
- Carte Blanche
 - Security
 - Personalize
- Possibility of using more than one Smart Card.
 - Privacy
- Ability to compartmentize the Smart Card
 - Privacy
- Consumer needs control/freedom over what information/items/value goes onto their Smart Card.
- Consumer flexibility in loading and unloading information/value (perhaps on a daily basis).

Smart Cards Can Be Used For

- Spontaneous Responses -



Executive Summary

- Quantitative Findings -

- Levels of trust in different companies varied by country, but were generally highest for:
 - National banks
 - American Express
 - Domestic Telecommunications Operator (except Germany).